

Date: Wednesday, 05/11/2008 9:17:30 AM
 User: Julie Dawson

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SUPPORT (412 AFT)
 Job Number : 43209
 Estimate Number : 11060
 P.O. Number :
 This Issue : 05/11/2008 S.O. No. :
 Prsht Rev. : NC Part Number : D28961
 First Issue : / / Type : MACHINED PARTS Drawing Number : D2896 UNDER REVIEW OK P 08.11.05
 Previous Run : 43210 Drawing Revision : B
 Material :
 Due Date : 12/11/2008 Qty: 20 Um: Each
 Written By :
 Checked & Approved By : JUD 08.11.05
 Comment : Est: B 02.11.26 Reformat; Added P/O; Added mask hole KJ
 Est Rev: C As per Rev B 07-04-16 JLM
 est D 08.03.19 Re-format EC verified by DD

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DSK080 D2896-1 TURNING DETAIL



Comment: Qty.: 0.5000 Each(s)/Unit Total : 10.0000 Each(s)
 D2896-1 TURNING DETAIL
 Batch: D38133

2.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS 1
 Machine as per Folio FA167
 Tumble & Deburr

08/11/23

(19)

3.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

08/11/23

(19)

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

mmw

J.L

(19)

5.0 HAND FINISHING1 HAND FINISHING RESOURCE #1




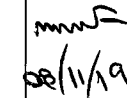
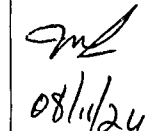

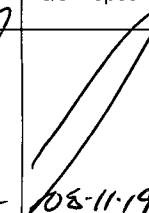
Comment: HAND FINISHING RESOURCE #1
 Mask Ø0.625" and face and bore as per Detail D and note 4 hole prior to paint

N/A P 08.11.05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
08.11.05	6	DO NOT POWDER COAT PRIME INSIDE AND BORE ONLY				CP 08.11.05 PC 051047	

Part No: D2896-1 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: 43209		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/11/19	2.0	Mistake was made in the order of machining steps, .625 Hole was drill .020 off original place. R.C. Not clear in the order of operations. Human Error.		7 part affected. Scrap part.	 08/11/19	 08/11/24	 08/11/19	 08-11-19

NOTE: Date & initial all entries

Date: Wednesday, 05/11/2008 9:17:30 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SUPPORT (412 AFT)

Job Number: 43209

Part Number: D28961

Job Number:



Seq. #:	Machine Or Operation:	Description :
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6.0	POWDER COATING	POWDER COATING
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Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

NO POWDER

COAT 08.11.05

7.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
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Comment: INSPECT POWDER COAT

NO POWDER COAT

8.0	SPRAY PAINTING	SPRAY PAINTING
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Comment: SPRAY PAINTING

Prime Bore as per QSI 005 4.2.

25 08-12-17

9.0	QC14	INSPECT SPRAY PAINT
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Comment: INSPECT SPRAY PAINT

ml 08 12 18

(19)

10.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: X-tube Ass

ml 08 12 18

(19)

11.0	QC21	FINAL INSPECTION/W/O RELEASE
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Comment: FINAL INSPECTION/W/O RELEASE

08/12/22

Job Completion



mf 08-12-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: A13209
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5 ?
HAAS Section								
AA	2.152	2.172		2.170	2.165	2.168	2.164	2.164
AB	2.340	2.360		2.359	2.356	2.354	2.347	2.343
AC	3.550	3.560		3.554	3.553	3.557	3.550	3.550
AD	3.770	3.790		3.778	3.778	3.775	3.774	3.772
AE	0.065 x 0.315	0.085 x 0.335		0.067 x 0.320	0.065 x 0.330	0.065 x 0.335	0.071 x 0.335	0.071 x 0.335
AF	1.42	1.48		1.45	1.45	1.44	1.453	1.453
AG	0.833	0.853		0.846	0.848	0.847	0.845	0.842
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.260	0.261	0.261	0.262	0.262
AJ	0.189	0.194		0.191	0.190	0.190	0.190	0.190
AK	1.990	2.010		2.007	2.000	2.000	2.005	2.008
AL	0.625	0.630		0.626	0.626	0.626	0.627	0.627
AM	101.75	105.75		103.64	103.64	103.64	103.64	103.64
AN	0.053	0.073		0.060	0.063	0.063	0.063	0.063
AO	0.926	0.946		0.932	0.930	0.931	0.938	0.935
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				Accept	Accept	Accept	0.002	

Measured by: AMF 08/11/23 / J.L. Date: 08/11/20

Audited by: DJP Date: 08/11/24

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	

Allo!!

DART AEROSPACE LTD		Work Order: 43209
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	27	38	49	510
HAAS Section								
AA	2.152	2.172		2.168	2.165	2.170	2.165	2.167
AB	2.340	2.360		2.352	2.350	2.350	2.352	2.349
AC	3.550	3.560		3.555	3.556	3.556	3.556	3.555
AD	3.770	3.790		3.781	3.781	3.780	3.778	3.777
AE	0.065 x 0.315	0.085 x 0.335		0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325
AF	1.42	1.48		1.453	1.453	1.454	1.454	1.457
AG	0.833	0.853		0.848	0.846	0.844	0.849	0.847
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.262	0.262	0.262	0.262	0.262
AJ	0.189	0.194		0.190	0.190	0.190	0.190	0.190
AK	1.990	2.010		1.997	2.003	2.000	1.995	2.005
AL	0.625	0.630		0.628	0.628	0.628	0.628	0.628
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.926	0.946		0.941	0.939	0.937	0.942	0.940
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				/	/	/	/	/

Measured by: J.L. / mmf 08/11/23
 Date: 08/11/21

Audited by: JLP
 Date: 08/11/24

Prototype Approval:
 Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
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DART AEROSPACE LTD		Work Order: 43209
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.152	2.172		2.172	2.158	2.169		
AB	2.340	2.360		2.347	2.348	2.350	2.354	2.354
AC	3.550	3.560		3.556	3.555	3.555	3.552	3.554
AD	3.770	3.790		3.779	3.780	3.780	3.778	3.779
AE	0.065 x 0.315	0.085 x 0.335		0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325
AF	1.42	1.48		1.451	1.455	1.454	1.449	1.446
AG	0.833	0.853		0.849	0.843	0.851	0.847	0.846
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.262	0.262	0.262	0.261	0.261
AJ	0.189	0.194		0.190	0.190	0.190	0.191	0.191
AK	1.990	2.010		1.996	2.000		1.995	2.000
AL	0.625	0.630		0.628	0.628	0.628	0.625	0.630
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.926	0.946		0.942	0.936	0.943	0.941	0.943
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				/	/	/	/	/

Measured by: J.L. / mms 08/11/23 **Date:** 08/11/23

Audited by: JLP **Date:** 08/11/24

Prototype Approval: **Date:**

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DART AEROSPACE LTD		Work Order:	43209
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1	

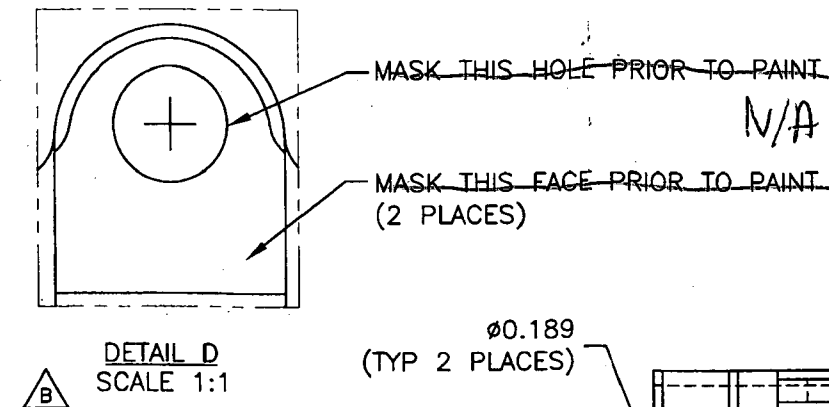
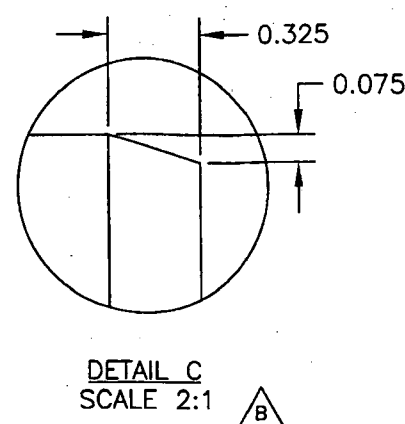
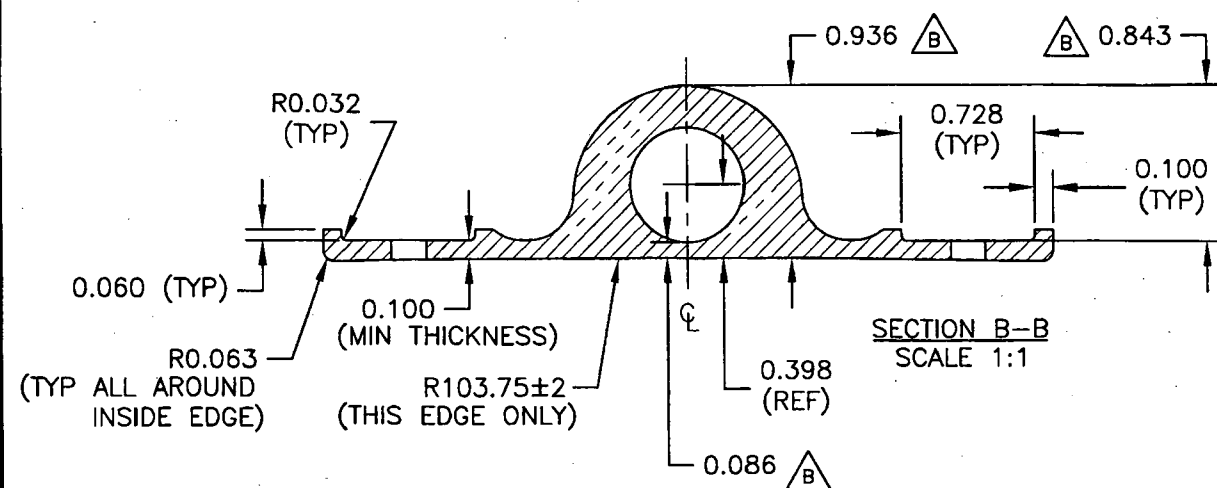
FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

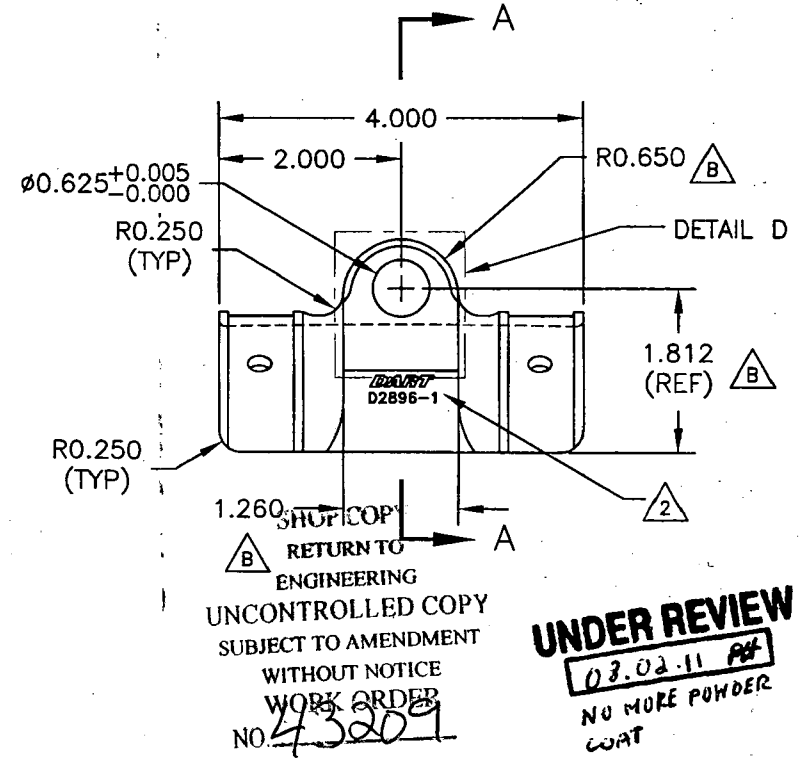
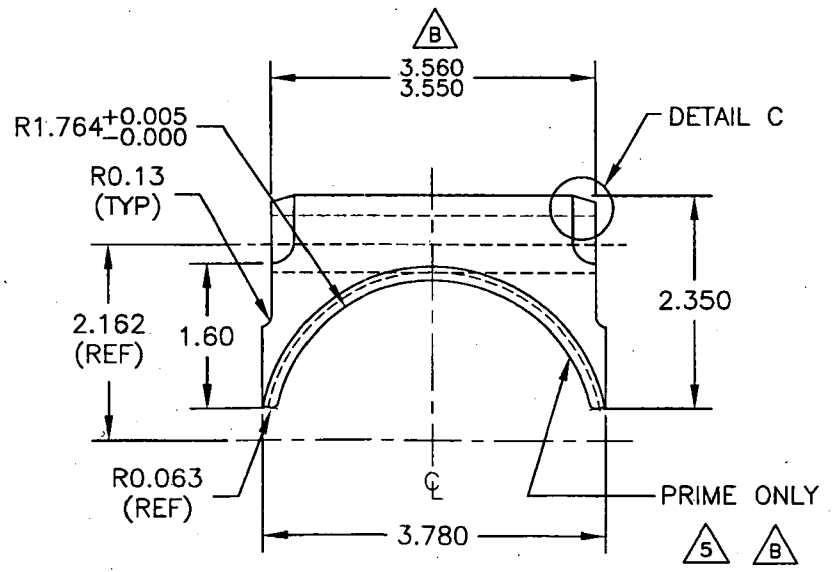
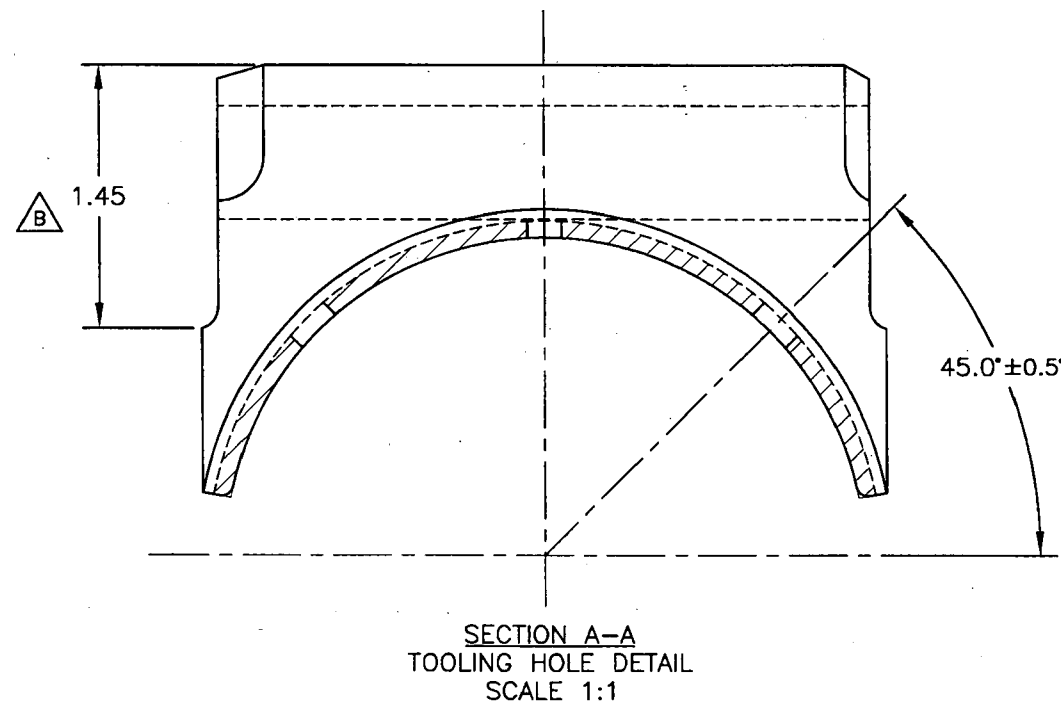
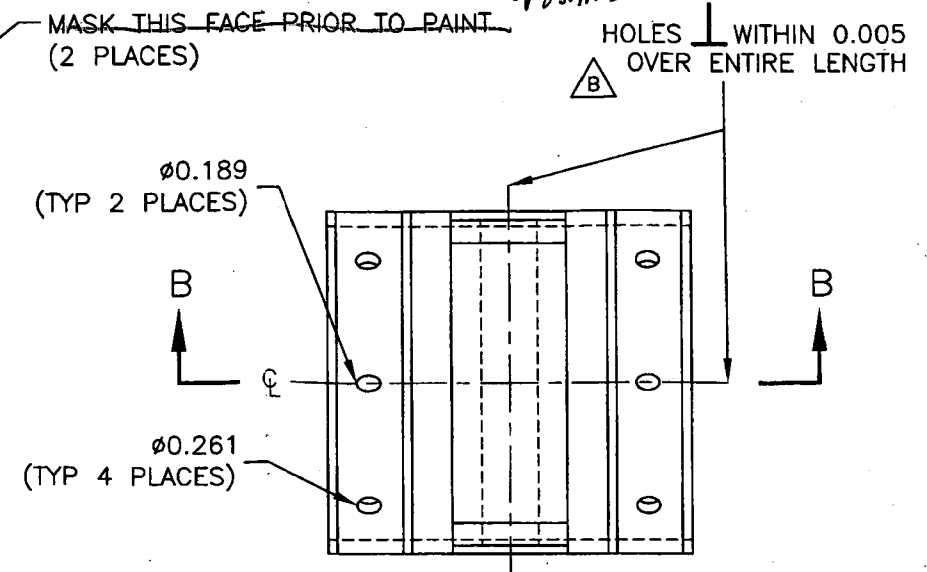
				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	2.152	2.172		2.169	2.165	2.163	2.169	
AB	2.340	2.360		2.357	2.354	2.351	2.357	
AC	3.550	3.560		3.555	3.555	3.556	3.558	
AD	3.770	3.790		3.777	3.778	3.780	3.779	
AE	0.065 x 0.315	0.085 x 0.335		0.075 x 0.325	0.075 x 0.325	0.075 x 0.326	0.075 x 0.320	
AF	1.42	1.48		1.445	1.45	1.44	1.45	
AG	0.833	0.853		.851	.845	.841	.848	
AH	0.240	0.260		.250	.250	.250	.250	
AI	0.261	0.266		.262	.262	.262	.262	
AJ	0.189	0.194		.190	.190	.190	.190	
AK	1.990	2.010		2.000	1.999	1.997	1.997	
AL	0.625	0.630		.628	.628	.627	.628	
AM	101.75	105.75		103.64	103.64	103.64	103.64	
AN	0.053	0.073		.063	.063	.063	.063	
AO	0.926	0.946		.942	.940	.936	.937	
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				✓	006	✓	✓	

Measured by: <u>mm</u>	Date: <u>08/11/23</u>
Audited by: <u>DJP</u>	Date: <u>08/11/24</u>
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
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E	08.04.22	Reformat	KJ/JLM	



RELEASED
07.04.12
PER BEN 946



D2896-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRc)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN THIS AREA
WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) FINISH: ~~POWDER COAT WHITE (REF 4.3.5.2) PER DART QSI 005 4.3~~
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2 (B)
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES

NO POWDER
COAT
08.11.05

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PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

D2896-1

B	07.03.19	INCORP. A1-A4, FINISHING NOTES
A	01.10.19	NEW ISSUE
DESIGN	GP	DRAWN BY PH
CHECKED	JP	APPROVED JP
DATE	07.03.19	TITLE SUPPORT
		DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
		DRAWING NO. D2896
		REV. B
		SHEET 1 OF 1
		SCALE 1:2

UNDER REVIEW
03.02.11
NO MORE POWDER
COAT

